


ACCLIMATE TO YOUR SURROUNDINGS



ARMY SAFE
IS ARMY STRONG

The background of the slide is a faded American flag, showing the stars and stripes. The title is enclosed in a red rectangular border.

Heat Injury Prevention

B.L.U.F.

Heat Acclimatization is necessary to prevent or reduce the severity of heat illness. Acclimatization is most quickly accomplished through daily exercise sessions in the heat that last a minimum of one or, preferably, two hours per day.

Background

Heat-related injuries are significant threats to the health and operational effectiveness of military members and their units. The human body's response to heat stress is quite resilient if given several weeks for adaptation to occur. This process, called acclimatization, involves a collection of inside adjustments to the outside

Heat Injury Prevention

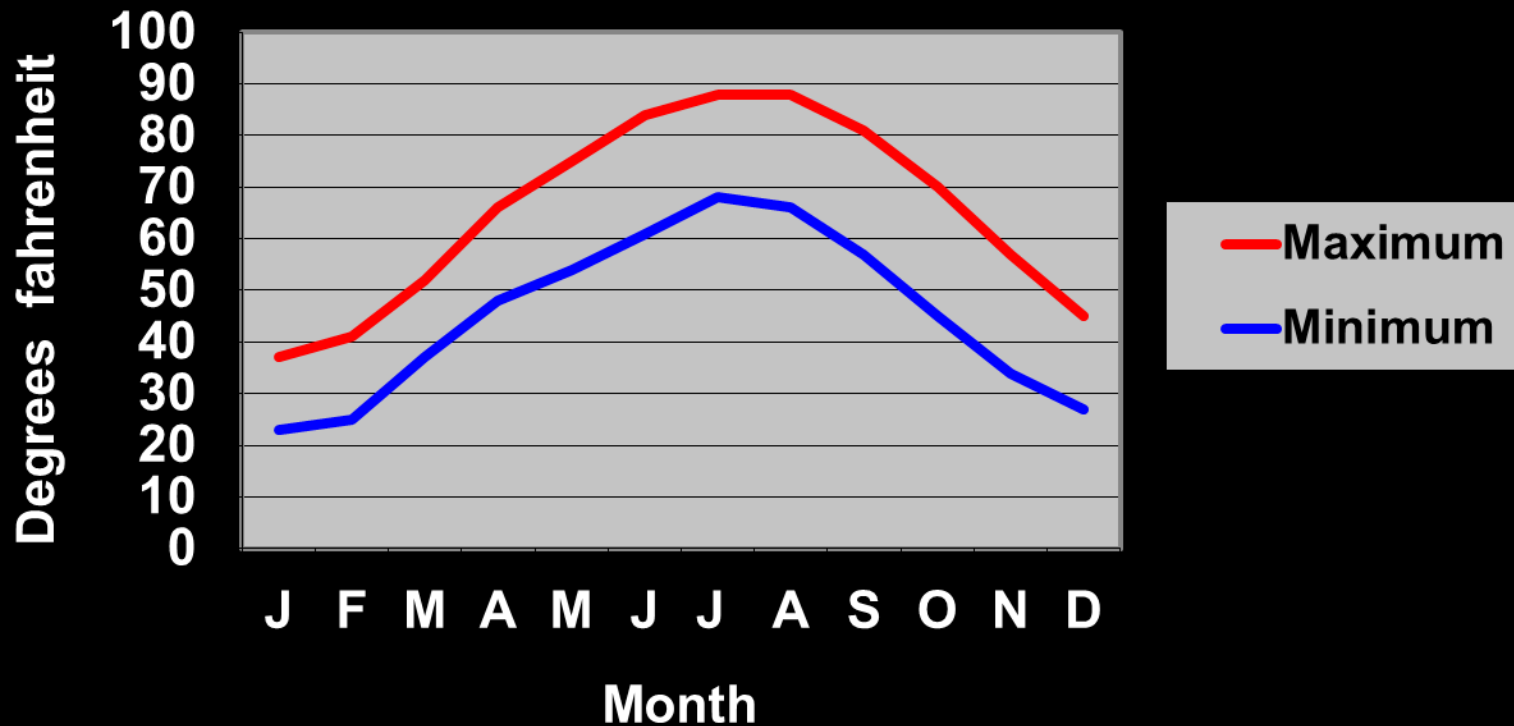
- **Soldiers need to acclimatize properly prior to conducting PRT in extremely hot environments.**
- **Heat acclimatization allows for those specific adaptations that aid in the reduction of physiological stress (heart rate, core temperature, and sweat adaptation).**
- **In hot environments Soldiers will safely acclimatize to the heat by conducting PRT sessions during the heat of the day at a lower intensity and volume.**
- **PRT can be moved from early morning to late morning or from late morning to mid-afternoon. This allows for acclimatization by gradually progressing to a warmer/hotter environment.**
- **The human body's response to heat stress is quite durable if given several weeks for adaptation to occur. This adaptation is a process that is fully achieved after 10 to 14 days.**

Prevention of Altitude Illnesses

- **Stay properly hydrated. Acclimatization is often accompanied by fluid loss, so you need to drink lots of fluids to remain properly hydrated (at least 3-4 quarts per day).**
- **Take it easy; don't over-exert yourself when you first get up to altitude. Light activity during the day is better than sleeping because respiration decreases during sleep, exacerbating the symptoms.**
- **The acclimatization process is inhibited by dehydration, over-exertion, and alcohol and other depressant drugs.**
- **Eat a high carbohydrate diet (more than 70% of your calories from carbohydrates) while at altitude.**
- **Keep in mind that different people will acclimatize at different rates. Make sure all of your party is properly acclimatized before going higher.**

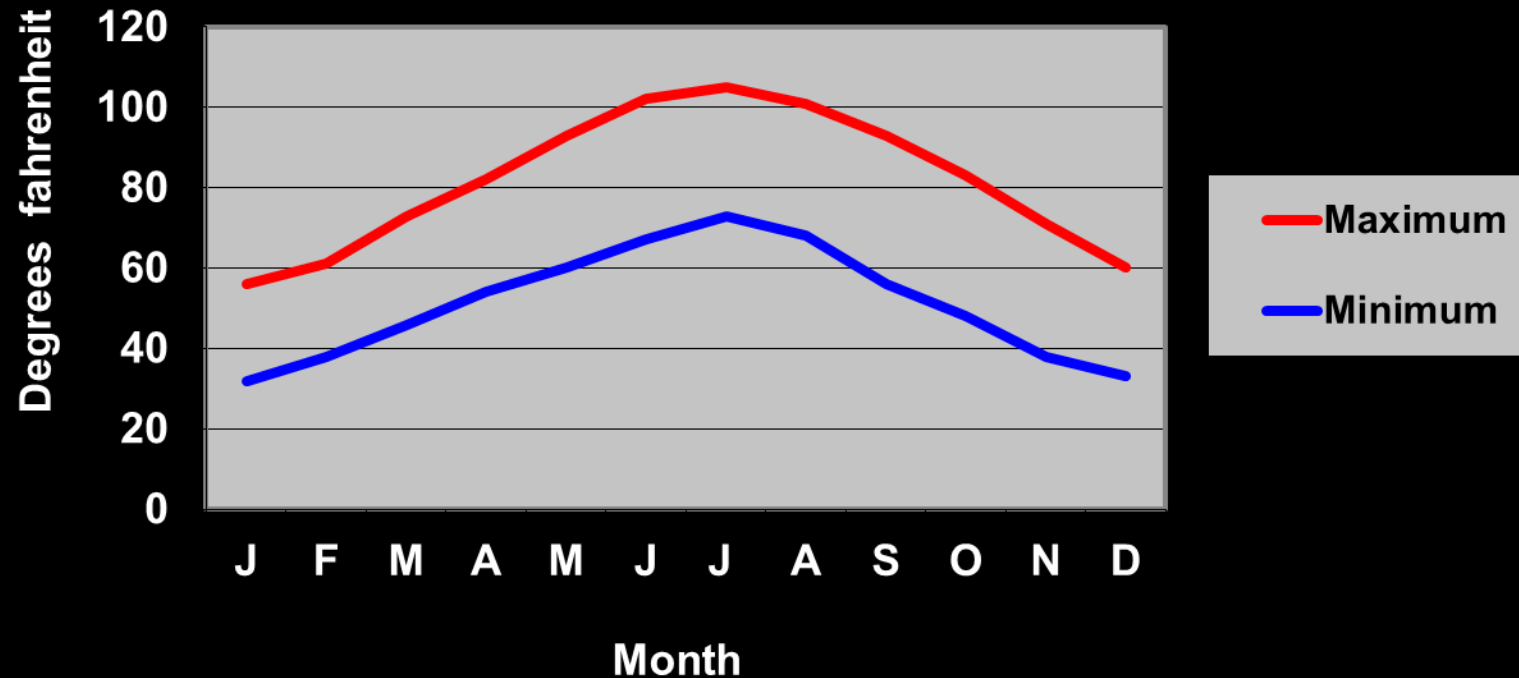
Physical Environment

Average Max/Min Temperature in Kabul



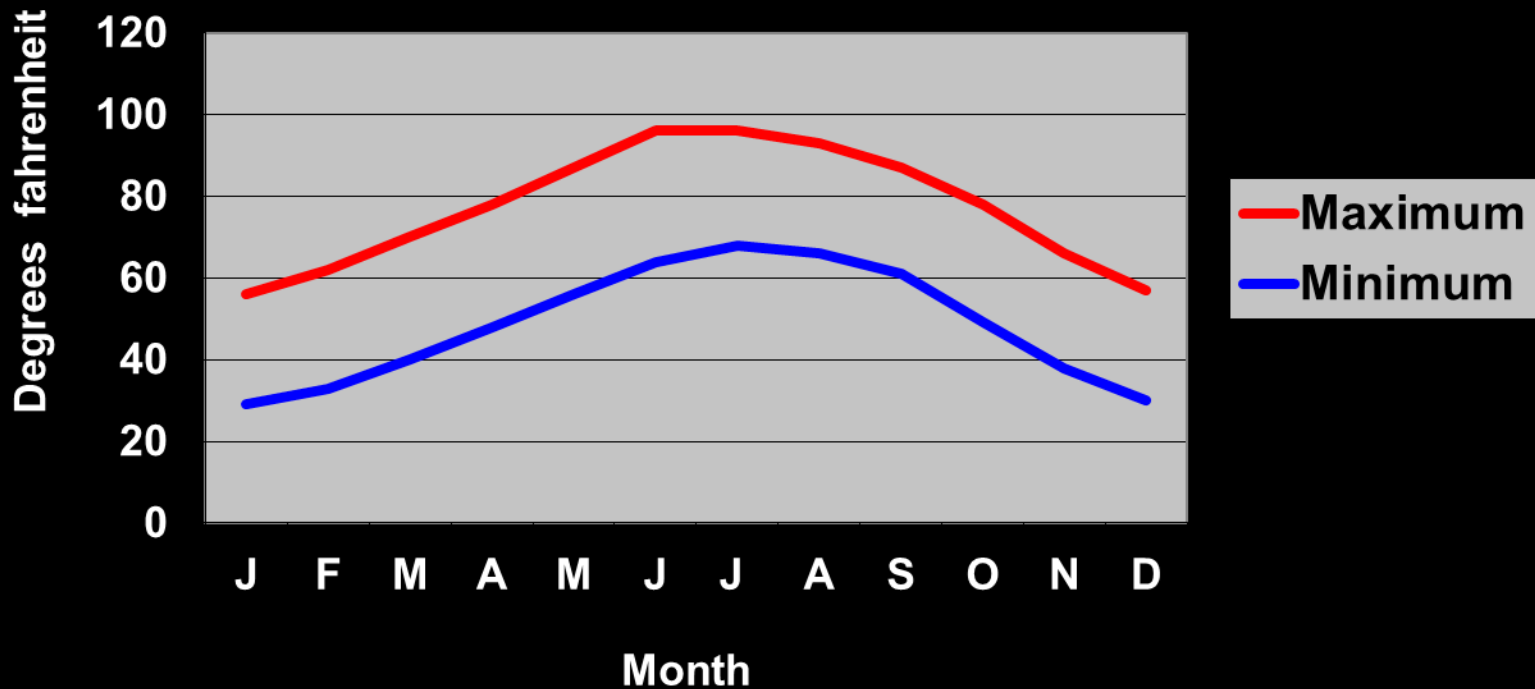
Physical Environment

Average Max/Min Temperature in Kandahar



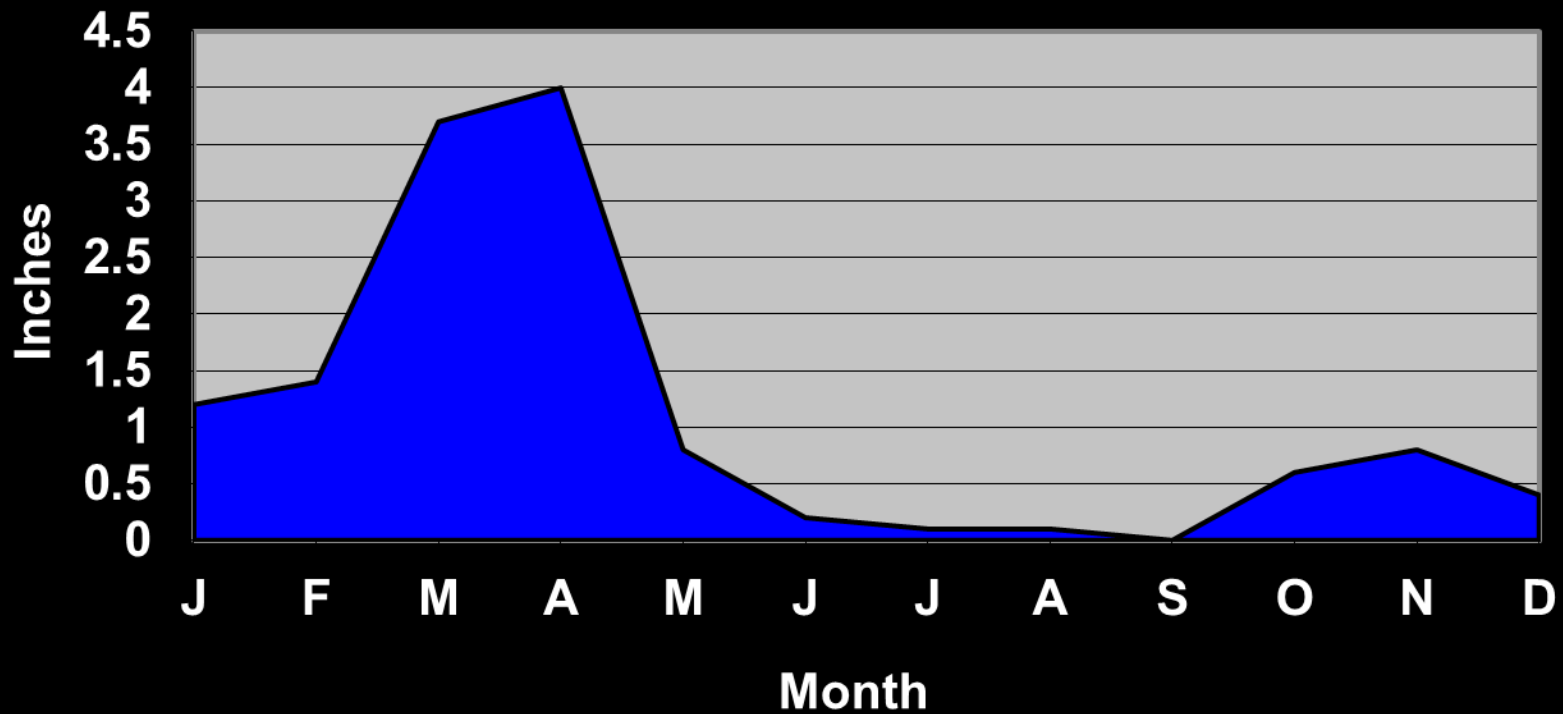
Physical Environment

Average Max/Min Temperature in El Paso



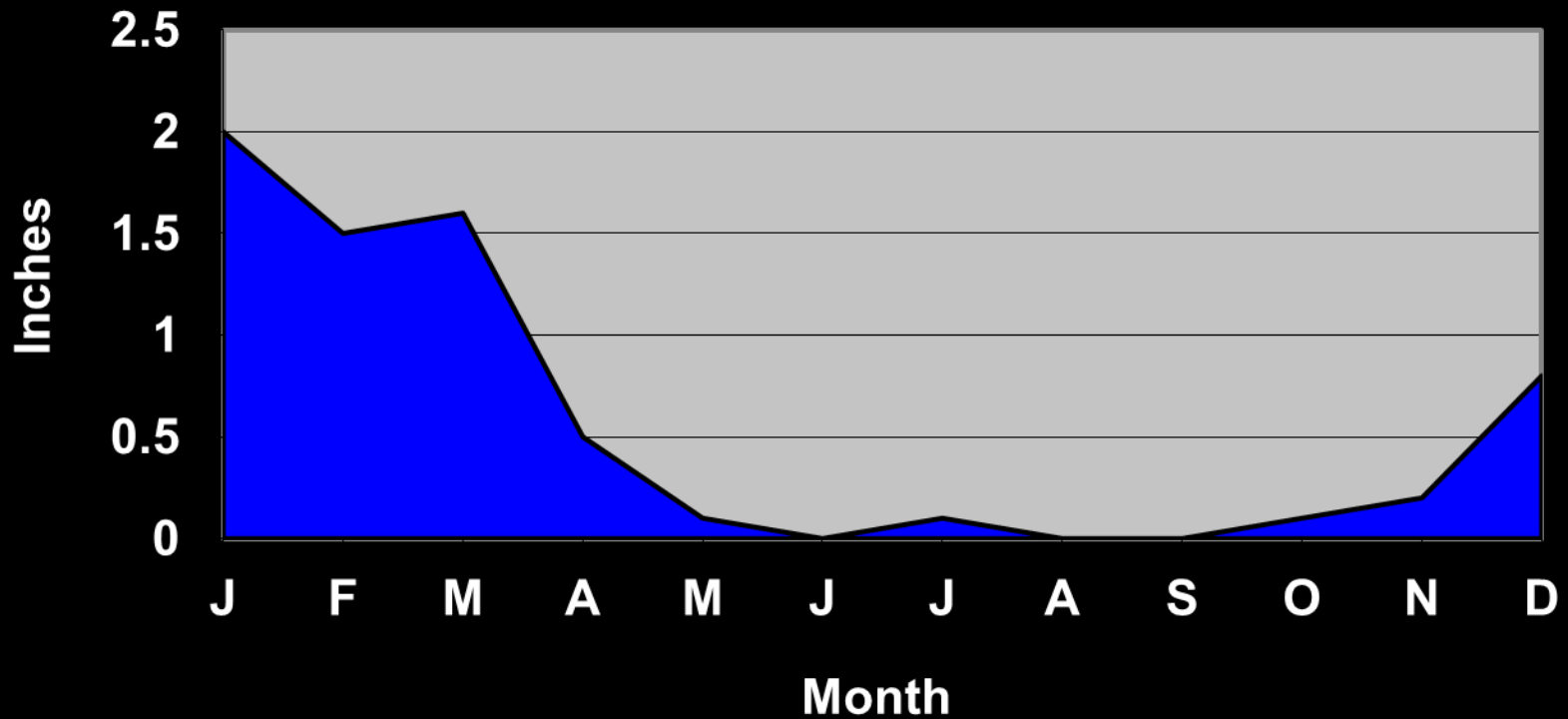
Physical Environment

Average Total Precipitation in Kabul



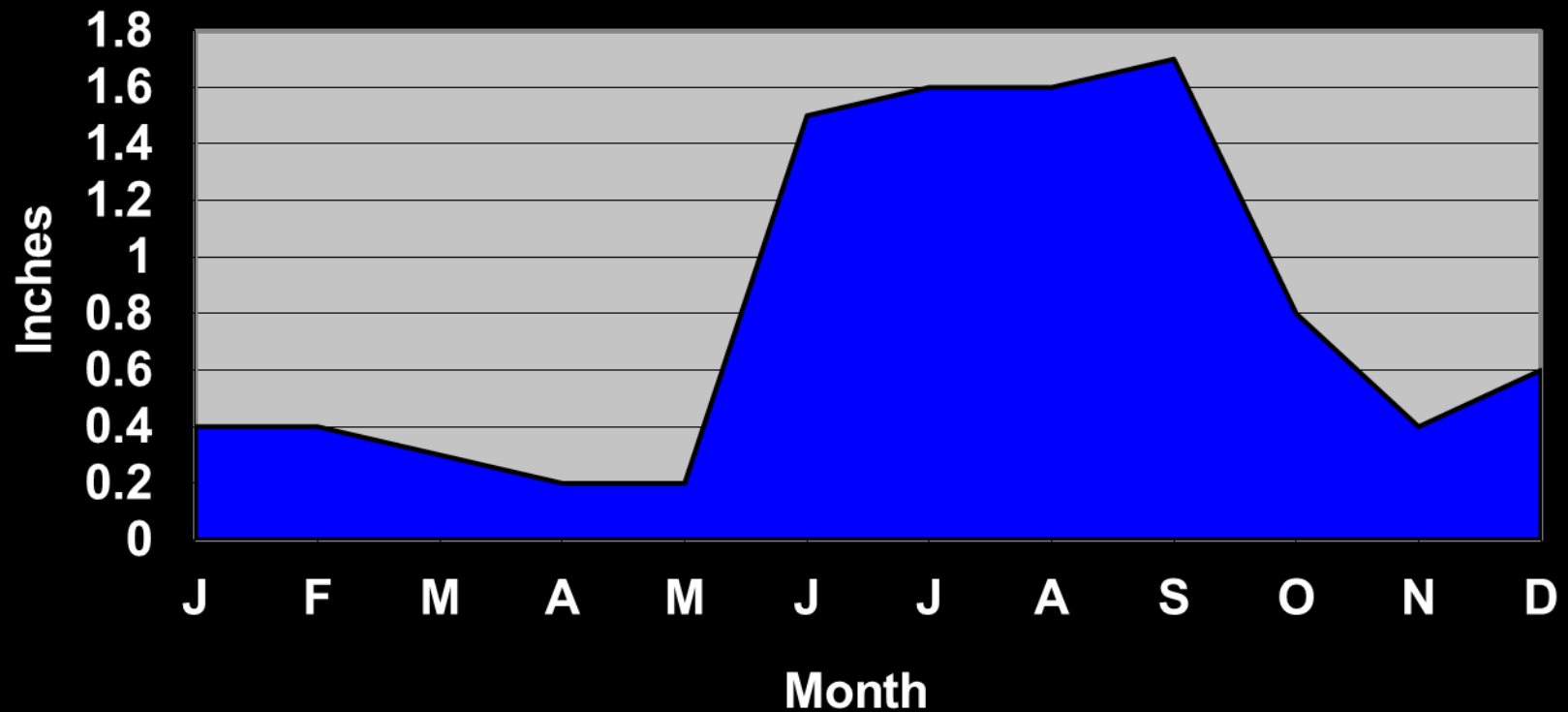
Physical Environment

Average Total Precipitation in Kandahar



Physical Environment

Average Total Precipitation in El Paso



HEAT INJURY PREVENTION

- Heat Cramps, Exhaustion, or Stroke

COUNTERMEASURES

- Drink fluids continuously (hourly fluid intake should not exceed 1.5 quarts, daily fluid intake should not exceed 12 quarts)
- Maintain acclimatization
- Protect yourself from exposure to sunlight and wind
- Maintain good physical condition
- Establish work/rest schedules
- Wear proper clothing
- Participate in training



You should receive annual unit training on prevention of heat injury. Heat injuries are preventable!

H.E.A.T.

H: Heat category – WBGT Index

E: Exertion level (prior 3 days)

A: Acclimatization

T: Tables – Water/Work/Rest

REMEMBER

Water requirements are not reduced by any form of training or acclimatization.

Units which have soldiers who do not drink because they do not have opportunities to urinate have a leadership problem.



SUNBURN

- Prevent overexposing skin and eyes to solar radiation and wind

COUNTERMEASURES

- Use sunscreen and lip balm
- Use protective eyewear
- Limit exposure
- Cover nose and mouth to limit drying



Sunburn reduces Soldier readiness and increases the likelihood of skin cancer.

CARBON MONOXIDE

- Carbon monoxide (CO) is a colorless, odorless, and tasteless gas produced by environmental control units.
- CO replaces oxygen in the body, causing headache, sleepiness, coma, and death.



COUNTERMEASURES

- Keep sleeping area windows slightly open for ventilation and air movement.
- DO NOT sleep in vehicles with the engine running.
- DO NOT park vehicles near air intakes to tents, trailers, or environmental control units.

Do not use unapproved commercial off-the-shelf heaters. Check with your unit Safety Officer.

HIGH ELEVATIONS

- High Altitude-elevations over 6,000 feet
 - High Altitude illnesses can kill
 - Stage ascents over time
 - Environmental conditions are more severe at higher elevations
 - Lower oxygen levels (“thin air”)
 - Colder temperatures, high winds, low visibility
 - Ice, snow, rocks, avalanches



Be observant of the common symptoms of mountain sickness: headache, nausea, vomiting, dizziness, fatigue, irritability, and coughing. Seek medical attention immediately if you experience any of these symptoms.

Hazardous Animals & Plants

- Animals

- Rabid dogs, snakes, centipedes, scorpions, spiders



- Plants

- Mexican Poppy, Fetid Nightshade, Jimson Weed



- Remember

- Do not handle animals
 - Shake out boots, clothing, & bedding
 - Do not touch, chew, eat, or burn unfamiliar plants



Occupational Hazards

Be Aware Of...

- Exhaust from engines and environmental control units
- Gases from weapons firing
- Solvents used to clean weapons
- Chemicals from painting vehicles/equipment
- Greases and oil from vehicle maintenance repair
- Detergents used to clean equipment
- Fuels and refueling operations
- Weapon systems: radiation energy, shock, vibration, noise



Environmental Health Risks

- Greatest short term risks associated extreme heat/cold
- High altitude sickness and conditions
- Carbon Monoxide poisoning
- Wildlife plants/animals



The background of the slide is a blurred American flag, showing the stars and stripes. A white rectangular box with a thin red border is positioned in the upper left quadrant, containing the word "CONCLUSION" in blue capital letters.

CONCLUSION

Health threat awareness and implementation of associated countermeasures discussed in this presentation is critical information during the pre-deployment timeframe.